This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A method of providing real-time decision support in the review of physiological data, the method comprising:

establishing a feature set library including a plurality of feature sets extracted from a plurality of physiological data records, wherein each of the plurality of physiological data records includes a corresponding interpretation~~of interpreted physiological data records~~;

gathering the physiological data;

interpreting the physiological data based on a predetermined set of criteria such that a separate interpretation of the physiological data is generated, wherein the interpreting step includes:

measuring the physiological data;

analyzing a set of characteristics associated with the physiological data;

extracting a feature set~~one or more patterns~~ from the physiological data to generate the separate interpretation; and

matching~~comparing~~ the separate interpretation from the physiological data to a record in the feature set library~~a set of known patterns from the library~~;

retrieving~~correlating the separate interpretation to~~ one or more of the physiological data records in the library of physiological data records according to the matching step; and

displaying the separate interpretation and the retrieved~~correed~~ physiological data records on a display.

2.   (Original) A method as claimed in claim 1, further comprising:

establishing a communications link to an expert location;

transmitting information concerning the interpretation to the expert location; and

displaying a communication from the expert location on the display.

3.   (Original) A method as claimed in claim 2, wherein transmitting information concerning the interpretation includes transmitting a text message.

4.   (Original) A method as claimed in claim 2, wherein transmitting information concerning the interpretation includes transmitting a voice message.

5.   (Canceled)

6.   (Currently Amended) A method as claimed in claim 1, further comprising determining whether the one or more feature sets~~extracted patterns~~ match one or more patterns in the set of known patterns.

7.   (Previously Presented) A method as claimed in claim 1, further comprising:
        creating a library of education materials; and
        displaying a predetermined portion of the education materials on the display.

8.   (Original) A method as claimed in claim 1, further comprising displaying a message based on the interpretation on the display.

9.   (Original) A method as claimed in claim 1, further comprising displaying the physiological data on the display.

10.   (Currently Amended) A physiological data interpretation system comprising:
a library of physiological data records;
        a physiological data acquisition device capable of acquiring physiological data and coupled to the library of feature sets extracted from a plurality of physiological data records, wherein each of the plurality of physiological data records includes a corresponding interpretation~~physiological data records~~, the acquisition device having an interpretation module to generate a separate interpretation of the physiological data and a correlation

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module to matchcompare the separate interpretation to the records in the feature set library of physiological records and retrievedetermine a set of physiologicalcorrelated data records according to the match made by the correlation module, wherein the interpretation module is configured to measure the physiological data, analyze a set of characteristics associated with the physiological data, and extract one or more feature setspatterns from the physiological data to generate the separate interpretation; and

an output device coupled to the acquisition device configured to display the separate interpretation and the retrieved set of physiological data records.

11.   (Original) A system as claimed in claim 10, wherein the output device is a display.

12.   (Original) A system as claimed in claim 10, further comprising
an expert location coupled to the acquisition device.

13.   (Original) A system as claimed in claim 12, wherein the expert location is a portal.

14.   (Original) A system as claimed in claim 12, wherein the acquisition device includes an information filter.

15.   (Original) A system as claimed in claim 12, wherein the acquisition device includes a communications module capable of transmitting messages to and receiving messages from the expert location.

16.   (Original) A system as claimed in claim 15, wherein the messages include text information.

17.   (Original) A system as claimed in claim 15, wherein the messages include voice information.

18.   (Original) A system as claimed in claim 10, further comprising a server coupled to the acquisition device, and wherein the library of physiological records is located on the server.

19.   (Original) A system as claimed in claim 10, further comprising a library of supplemental materials coupled to the acquisition device.

20.   (Currently Amended) A system as claimed in claim 10, wherein the library of feature setsphysiological data records includes ECG data.

21.   (Original) A system as claimed in claim 10, wherein the acquisition device is an ECG acquisition device.

22.   (Original) A system as claimed in claim 10, wherein the acquisition device includes a browser.

23.   (Original) A system as claimed in claim 10, wherein the interpretation includes at least one textual message.

24.   (Original) A system as claimed in claim 10, wherein the acquisition module includes a confirmation module to confirm the integrity of the physiological data.

25.   (Currently Amended) A method of interpreting physiological data, the method comprising:
        acquiring physiological data;
        interpreting the physiological data based on a predetermined set of criteria such that a separate interpretation is generated, wherein the interpreting step includes:
                measuring the physiological data;
                analyzing a set of characteristics associated with the physiological data;
                checking the integrity of the acquired physiological data by extracting one or

more feature setspatterns from the physiological data to generate the separate interpretation; and

matchingcomparing the separate interpretation from the physiological data to a set of feature setsknown patterns from a library, wherein the set of feature sets are extracted from a plurality of physiological data records, wherein each of the plurality of physiological data records includes a corresponding interpretation of physiological records;

retrievingcorrelating the separate interpretation to one or more physiological data records in the library of physiological data records according to the matching step; and

displaying the separate interpretation and the retrievedcorrelated physiological data records on a display.

26.   (Cancelled)

27.   (Original) A method as claimed in claim 25, further comprising:
establishing a communications link to an expert location;
transmitting information concerning the interpretation to the expert location; and
displaying a communication from the expert location on the display.

28.   (Original) A method as claimed in claim 27, wherein transmitting information concerning the interpretation includes transmitting a text message via instant messaging.

29.   (Original) A method as claimed in claim 27, wherein transmitting information concerning the interpretation includes transmitting a voice message via voice-based instant messaging.

30. (Canceled)

31.   (Original) A method as claimed in claim 25, further comprising:
creating a library of supplemental materials; and

displaying some of the supplemental materials on the display.